



8th NOAA Testbed and Proving Grounds Workshop Agenda

Kansas City Training Center, Apr 25-26, 2017

Tuesday, April 25, 2017

7:30 - 8:00 **Registration, Coffee, tea, and light refreshments**
8:00 - 8:30 Workshop Welcome and Overview, **Paula Davidson**

SESSION I Roundups

8:30 - 10:15 **Testbed Roundups #1 – 6 (10 mins + 5 Q&A)**
8:30 Aviation Weather Testbed , **Joshua Scheck**
8:45 Development Testbed Center, **Bill Kuo**
9:00 Coastal and Ocean Modeling Testbed, **Becky Baltes**
9:15 - 9:30 **Break**
9:30 Joint Hurricane Testbed, **Chris Landsea**
9:45 Joint Center for Satellite Data Assimilation, **James Yoe**
10:00 Climate Testbed, **Dave DeWitt**

10:15-10:30 **Break**

10:30 - 12:15 **Testbed Roundups #7- 12 (10 mins + 5 Q&A)**
10:30 Hazardous Weather Testbed, **Alan Gerard and Steve Weiss**
10:45 Hydrometeorological Testbed, **Jim Nelson and Lisa Darby**
11:00 Operations Proving Ground, **Kim Runk**
11:15 - 11:30 **Break**
11:30 GOES-R Proving Ground, **Steve Goodman**
11:45 Space Weather Prediction Testbed, **Rodney Viereck**
12:00 Arctic Testbed, **Gene Petrescu**

12:15 - 12:25 **Break, Pick up Working Lunch**

SESSION II: Science Theme Session (Theme topics below)

12:25 - 12:30 Introduction
12:30 - 3:30 **Science Theme Papers (15 mins + 5 Q&A)**

12:30 “Using Research-to-Operations Evaluation Results to Shape a National Weather Service Training Experience”. **Chad Gravelle, OPG**
12:45 “Enhancing The Impact Of Proving Grounds with NWS Training Exercises On New Weather Satellites”. **Jordan Gerth, GRPG**

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- 1:00 "Integrating advanced satellite observations from GOES-16 baseline imagery into aviation weather operations through the Aviation Weather Testbed".
Amanda Terborg, AWT
- 1:15 "Visualizing total lightning in the Aviation Weather Testbed and Aviation Weather Center". **Brian Pettegrew, AWT**
- 1:30 - 1:45 **Break**
- 1:45 "Evaluation of New Analyses and Methods for Verification of Cloud Predictions".
Barbara Brown, DTC
- 2:00 "Assimilation of New Satellite Data – GOES-16, JPSS-1, and COSMIC-2" **Benjamin Johnson, JCSDA**
- 2:15 "Precipitation Rate Estimation Based On Specific Attenuation". **Stephen Cocks, HWT**
- 2:30 "Hypoxia Forecasts as a Tool for Chesapeake Bay Fisheries". **Marjy Friedrichs (REMOTE) COMT**
- 2:45-3:00 **Break**
- 3:00 "Testing and evaluation of physical parameterization innovations for NOAA's Next-Generation Global Prediction System". **Ligia Bernardet (REMOTE) DTC**
- 3:15 "The 2017 Winter Weather Experiment: Results and Verification Methods"
Benjamin Albright HMT
- 3: 30 "Addressing Forecast Challenges at the Satellite Proving Ground for Marine, Precipitation, and Satellite Analysis in Preparation for GOES-16 and JPSS-1"
Michael Folmer GRPG
- 3:45 - 4:45 General Q&A for science theme presentations,Day 1 Wrap up**
- 6:00 Dinner on your own (or organized by participants)**

Wednesday, April 26, 2017

7:45-8:15 Coffee, tea, and light refreshments

SESSION III Emerging and Affiliated Capabilities

8:15 National Water Center TBPG **Tomislava (Tomi) Vukicevic**

8:35-10:00 **Posters:**

- **Emerging and Affiliated programs**
 - “NOAA's Joint Polar Satellite System's Proving Ground and Risk Reduction (PGRR) Program – PGRR Projects Focusing JPSS Capabilities on Increasingly Complex Environmental Challenges” **Mitch Goldberg and Bill Sjoberg, JPSS Program Science Office**
 - “Converging Remote Sensing and Data Assimilation Techniques: A Data Fusion Approach for Near-real-time 4D Global Analyses” **Erin Jones RTI at NOAA/NESDIS/STAR, Eric Maddy RTI at NOAA/NESDIS/STAR, Sid Boukabara NOAA/NESDIS/STAR, Kevin Garrett RTI at NOAA/NESDIS/STAR**
 - “Analysis and Nowcast Branch (AFS11): A New Branch in NWS HQ to Improve 0-18 Hour Forecast” **Young-Joon “YJ” Kim and Mark Tew, NOAA/NWS Analysis and NowCast Branch AFS**
 - “Improvement in the detection of snow-covered areas using RGB image composites” **Lee Yunbok Korean Meteorological Administration**
 - “Geostationary Lightning Mapper Satellite Liaison Activities for 2016” **Geoffrey T. Stano ENSCO INC/ESSSA Jacobs, Kevin K. Fuell UAH/ESSSA Jacobs, Anita LeRoy UAH/ESSSA Jacobs, Christopher J. Schultz NASA Marshall/ESSSA Jacobs, Kevin M. McGrath ESSA Jacobs**
 - “An Overview of NASA SPoRT GOES-R Proving Ground and Risk Reduction Program Activities” **Geoffrey T. Stano ENSCO INC/NASA SPoRT, Kevin K. Fuell UAH/NASA SPoRT, Anita LeRoy UAH/NASA SPoRT, Emily B. Berndt NASA Marshall/NASA SPoRT, Kevin M. McGrath ESSSA Jacobs/, Andrew L. Molthan NASA Marshall/NASA SPoRT, Christopher J. Schultz NASA Marshall/NASA SPoRT, Kris White NWS Hunstville/NASA SPoRT**
 - “An Overview of NASA SPoRT JPSS Proving Ground and Risk Reduction Program Activities” **E. Berndt NASA Marshall/NASA SPoRT, K. Fuell UAH/NASA SPoRT, K. McGrath ESSSA Jacobs/NASA SPoRT, A. Molthan NASA Marshall/NASA SPoRT, L. Schultz UAH/NASA SPoRT, M. Smith UAH/NASA SPoRT, K. White NWS Hunstville/NASA SPoRT, B. Zavodsky NASA Marshall/NASA SPoRT**

- **Science Theme**
 - “Expanding Community-based Tools to Enhance the Assimilation of Satellite Data in Operational Environmental Analyses and Models”
Tom Auligne JCSDA
 - “The challenge of managing new observation data flows into a shared testbed/operations IT environment” **Bruce Entwistle AWC**
 - “Getting COMT on PARR: Increasing public access to COMT results”
Brian McKenna COMT

SESSION IV Discussion

10:00 - 12:00 Panel: TBPG managers; followed by facilitated discussion with workshop participants

Panel Questions

1. Based on what we heard and saw yesterday/today, what areas of emerging science and technology merit priority attention?
 - Specific to the observations, and tools/techniques to exploit them in forecasting missions, that could be transitioned to operations/application relatively soon?
2. Many of the transition tests are for capabilities to help NOAA and NWS achieve Weather Ready Nation goals, e.g. providing consistent, reliable (and probabilistic) information critical for decision support. If your TBPG is testing or planning to test aspects of a) NOAA’s Next Generation global model as part of its approach to unified environmental modeling and/or b) NBM*, how do you see these efforts leveraging related transition testing at your facility?
3. More generally, what activities/capabilities are you engaged in and/or planning in order to enhance collaboration and collaborative testing with other TBPG facilities?

*NBM: National Blend of Models

12:00-12:15 Review and Next Steps

12:15 Adjourn Annual workshop

Workshop Theme

The workshop will feature an integrating science theme highlighting transition testing conducted at NOAA TBPG within the last year on enhancements to NOAA’s New Observing System Capabilities and the fusion of observations with environmental forecast models. Examples include advances in satellite observations with the first satellite in the GOES-R and JPSS series, radio occultation from the COSMIC II follow-on, space weather from DSCOVR and altimetry from Jason 3, as well as the rapidly growing use of unmanned aeronautical and undersea systems, and recent field campaigns such as the El Nino Rapid Response and VORTEX-SE provide new and exciting data to advance our forecast and warning services to benefit the nation.